

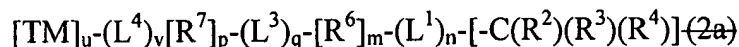
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-55. (cancelled).

56. (currently amended): A lipid represented by the following formula (2a):



wherein:

TM is an antibody or an antigen binding fragment or derivative thereof,

u is an integer 1 or 2,

L^4 is $-(Alk^1)_r(X^1)_s(Alk^2)_t-$,

wherein X^1 is an -O- atom; a -S- atom; -C(O)-; -C(O)O-; -C(S)-; -S(O); -S(O)₂-; -N(R⁵)-; -CON(R⁵)-; -OC(O)N(R⁵)-; -CSN(R⁵)-; -N(R⁵)CO-; N(R⁵)C(O)O-; -N(R⁵)CS-; -S(O)N(R⁵)-; -S(O)₂N(R⁵)-; -N(R⁵)S(O)-; -N(R⁵)S(O)₂-; -N(R⁵)CON(R⁵)-; or -N(R⁵)SO₂N(R⁵)-,

wherein R⁵ is a hydrogen atom, a straight or branched alkyl group or an -Alk¹X¹- chain;

wherein in any of the groups containing two R⁵ substituents each R⁵ may be the same or different;

wherein Alk¹ and Alk², which may be the same or different, is each an optionally substituted straight or branched C₁₋₁₀alkylene, C₂₋₁₀alkenylene or C₂₋₁₀alkynylene chain optionally interrupted or terminated by at least one carbocyclic or heterocarbocyclic groups and/or heteroatoms or heteroatom containing groups X¹; and

r, s, and t, which may be the same or different, is each zero or the integer 1, provided that when one of r, s or t is zero, at least one of the remainder is the integer 1 __,

v is zero or the integer 1,

L¹ is -X¹Alk²- or -[X¹]₂Alk¹X¹Alk²-,

wherein X¹ is an -O- atom; a -S- atom; -C(0)-; -C(0)0-; -C(S)-; -S(0); -S(O)₂-; -N(R⁵)-; -CON(R⁵)-; -OC(O)N(R⁵)-; -CSN(R⁵)-; -N(R⁵)CO-; N(R⁵)C(0)0-; -N(R⁵)CS-; -S(O)N(R⁵)-; -S(O)₂N(R⁵)-; -N(R⁵)S(0)-; -N(R⁵)S(O)₂-; -N(R⁵)CON(R⁵)-; or -N(R⁵)SO₂N(R⁵)-;

wherein R⁵ is a hydrogen atom, a straight or branched alkyl group or an -Alk¹X¹- chain,

wherein in any of the groups containing two R⁵ substituents each R⁵ may be the same or different;

wherein Alk¹ and Alk², which may be the same or different, is each an optionally substituted straight or branched C₁₋₆alkylene, C₂₋₆alkenylene or C₂₋₆alkynylene chain optionally interrupted or terminated by at least one carbocyclic or heterocarbocyclic groups and/or heteroatoms or heteroatom containing groups X¹ __,

m is an integer of from 1 to 6,

n is zero or the integer 1;

R⁷ is a hydrophilic hydrocarbon containing at least two atoms or groups capable of being solvated by water;

p is an integer of from 1 to 6;

L³ is -X¹-, -X¹Alk¹X¹- or [X¹Alk¹]₁X¹Alk²X¹,

wherein X¹ is an -O- atom; a -S- atom; -C(0)-; -C(0)0-; -C(S)-; -S(0); -S(O)₂-; -N(R⁵)-; -CON(R⁵)-; -OC(O)N(R⁵)-; -CSN(R⁵)-; -N(R⁵)CO-; N(R⁵)C(0)0-; -N(R⁵)CS-; -S(O)N(R⁵)-; -S(O)₂N(R⁵)-; -N(R⁵)S(0)-; -N(R⁵)S(O)₂-; -N(R⁵)CON(R⁵)-; or -N(R⁵)SO₂N(R⁵)- group;

wherein R^5 is a hydrogen atom, a straight or branched alkyl group or an $-Alk^1X^1-$ chain;

wherein in any of the groups containing two R^5 substituents each R^5 may be the same or different;

wherein Alk^1 and Alk^2 , which may be the same or different, is each an optionally substituted straight or branched C_{1-6} alkylene, C_{2-6} alkenylene or C_{2-6} alkynylene chain optionally interrupted or terminated by at least one carbocyclic or heterocarbocyclic groups and/or heteroatoms or heteroatom containing groups X^1 ;

q is zero or an integer of from 1 to 6;

R^6 is a hydrocarbon chain;

R^2 is a hydrogen atom or an optionally substituted aliphatic, cycloaliphatic, heteroaliphatic, heterocycloaliphatic, aromatic or heteroaromatic group optionally containing one or more cationic centers; and

R^3 and R^4 , which may be the same or different, is each an optionally substituted aliphatic, cycloaliphatic, heteroaliphatic, heterocycloaliphatic, aromatic or heteroaromatic group containing one or more cationic centers or R^3 and R^4 together with the carbon atom to which they are attached form a cycloaliphatic, heterocycloaliphatic, aromatic or heteroaromatic group containing two or more cationic centers.

57. (canceled).

58. (withdrawn): The lipid according to Claim 56, wherein u is the integer 1.

59. (withdrawn): The lipid according to Claim 56, wherein:

v is the integer 1.

60. (withdrawn): The lipid according to Claim 56, wherein L^4 is an $-NHCO(Alk^2)_t-$ group.

61. (previously presented): The lipid according to Claim 56, wherein R^2 is a hydrogen atom; and R^3 and R^4 are each $Sp^1[WSp^2]_bWSp^3$ or $-Sp^1[WSp^2]_bWH$, wherein Sp^1 , Sp^2 and Sp^3 , which may be the same or different, is each a spacer group, W is a cationic center and b is zero or an integer from 1 to 6.

62. (previously presented): The lipid according to Claim 61, wherein Sp^1 , Sp^2 and Sp^3 is each an optionally substituted aliphatic, cycloaliphatic, heteroaliphatic, heterocycloaliphatic, aromatic or heteroaromatic group.

63. (previously presented): The lipid according to Claim 62, wherein Sp^1 , Sp^2 and Sp^3 is each an optionally substituted C_{1-6} alkylene chain.

64. (previously presented): The lipid according to Claim 61, wherein W is a $-NH-$ group.

65. (previously presented) The lipid according to Claim 61, wherein b is an integer of from 1 to 3.

66. (previously presented): The lipid according to Claim 56, wherein $-C(R^2)(R^3)(R^4)$ is $-\text{CH}[\text{Sp}^1\text{NHSp}^2\text{NH}_2]_2$, $-\text{CH}[\text{Sp}^1\text{NHSp}^2\text{NHSp}^2\text{NH}_2]_2$ or $-\text{CH}[\text{Sp}^1\text{NHSp}^2\text{NHSp}^2\text{NHCH}_3]_2$, wherein Sp^1 is $-\text{CH}_2-$ and each Sp^2 is $-(\text{CH}_2)_3-$ or $-(\text{CH}_2)_4-$.

67. (withdrawn): The lipid according to Claim 56, wherein n in $-(L^1)_n-$ is the integer 1.

68. (canceled).

69. (withdrawn): The lipid according to Claim 67, wherein X^1 is a $-\text{CONH}-$ group, Alk^1 is a $-\text{CH}_2-\text{CH}_2$ chain and Alk^2 is a $-(\text{CH}_2)_4-$ chain, $-(\text{CH}_2)_5-$ chain or $-(\text{CH}_2)_6-$ chain.

70. (withdrawn): The lipid according to Claim 56, wherein m is an integer 1 or 2.

71. (previously presented): The lipid according to Claim 56, wherein R^6 is an optionally substituted C_{10-60} aliphatic chain.

72. (previously presented): The lipid according to Claim 71, wherein R^6 is a linear, optionally substituted C_{16-38} alkylene chain.

73. (previously presented): The lipid according to Claim 56, wherein q is the integer 1 and p is the integer 1 or 2.

74. (canceled).

75. (previously presented): The lipid according to Claim 56, wherein L^3 is a -NHC0-, -CONH-, -CONH(CH₂)₂NHCO-, or -[CONH(CH₂)₂-]₂NCO(CH₂)₂CONH group.

76. (previously presented): The lipid according to Claim 56, wherein R^7 is a synthetic or naturally occurring polyol or a poly(alkylene oxide) or a derivative thereof.

77. (previously presented): The lipid according to Claim 76, wherein R^7 is a poly(alkylene oxide) or a derivative thereof.

78. (previously presented): The lipid according to Claim 77, wherein R^7 is a poly(ethylene oxide).

79. (withdrawn): The lipid according to Claim 59, wherein R^5 is a methyl or ethyl group.

80. (withdrawn): The lipid according to Claim 67, wherein R^5 is a methyl or ethyl group.

81. (previously presented): The lipid according to Claim 56, wherein R^5 is a methyl or ethyl group.